

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** RUSSELL H. TAYLOR and YONG-YIL KIM

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Appeal No. 96-1943  
Application No. 08/147,008<sup>1</sup>

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ON BRIEF

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Before MEISTER, FRANKFORT, and STAAB, ***Administrative Patent Judges***.

MEISTER, ***Administrative Patent Judge***.

***DECISION ON APPEAL***

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<sup>1</sup> Application for patent filed November 2, 1993.

Appeal No. 96-1943  
Application No. 08/147,008

Russell H. Taylor and Yong-Yil Kim (the appellants)  
appeal from the final rejection of claims 1-16, 43-46, 57-61  
and 66, the only claims remaining in the application.

We REVERSE.

The appellants' invention pertains to an apparatus for  
assisting a surgeon in manipulating a surgical instrument.  
Independent claim 1 is further illustrative of the appealed  
subject matter and a copy thereof can be found in the appendix  
to the brief.

No prior art has been relied on by the examiner.

Claims 1-16, 43-46, 57-61 and 66 stand rejected under 35  
U.S.C. § 112, first paragraph, as failing to provide "an  
adequate written description" of the claimed invention.

Claims 1-16, 43-46, 57-61 and 66 stand rejected under 35  
U.S.C. § 112, second paragraph, as being indefinite for  
failing to particularly point out and distinctly claim the  
subject matter which the appellants regard as the invention.

The rejections are explained on pages 3-6 of the Office  
action mailed October 24, 1994 (Paper No. 23). The arguments  
of the appellant and examiner in support of their respective

Appeal No. 96-1943  
Application No. 08/147,008

positions may be found on pages 3-16 of the brief and pages 2-6 of the answer.

#### **OPINION**

Considering first the rejection under 35 U.S.C. § 112, first paragraph, we initially observe that the description requirement found in the first paragraph of 35 U.S.C. § 112 is separate from the enablement requirement of that provision. **See Vas-Cath, Inc. v. Mahurkar**, 935 F.2d 1555, 1560-64, 19 USPQ2d 1111, 1114-17 (Fed. Cir. 1991) and **In re Barker**, 559 F.2d 588, 591, 194 USPQ 470, 472 (CCPA 1977), **cert. denied**, 434 U.S. 1238 (1978). Although the examiner has indicated that the rejection is based on a failure to provide an adequate written description of the invention (see Paper No. 23, page 3), it is apparent to us from the examiner's comments and arguments that the rejection is in reality based upon a non-enabling disclosure.

Appeal No. 96-1943  
Application No. 08/147,008

It is well settled that the test regarding enablement is whether the disclosure, as filed, is sufficiently complete to enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. **See In re Scarbrough**, 500 F.2d 560, 566, 182 USPQ 298, 302 (CCPA 1974) and **In re Wands**, 858 F.2d 731, 737 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). As a threshold matter, the examiner has the initial burden of producing reasons that substantiate a rejection based on lack of enablement. **See In re Marzocchi**, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971) and **In re Strahilevitz**, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982). Once this is done, the burden shifts to the appellants to rebut this conclusion by presenting evidence to prove that the disclosure is enabling. **See In re Eynde**, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) and **In re Doyle**, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973), **cert. denied**, 416 U.S. 935 (1974).

Additionally, as the court in **In re Gaubert**, 524 F.2d 1222, 1226, 187 USPQ 664, 667 (CCPA 1975) set forth in quoting

Appeal No. 96-1943  
Application No. 08/147,008

from **Martin v. Johnson**, 454 F.2d 746, 751, 172 USPQ 391, 395  
(CCPA 1972):

To satisfy § 112, the specification disclosure must be sufficiently complete to enable one of ordinary skill in the art to make the invention without undue experimentation, although the need for a minimum amount of experimentation is not fatal \* \* \*. Enablement is the criterion, and **every detail need not be set forth in the written specification** if the skill in the art is such that the disclosure enables one to make the invention. [Citations omitted; emphasis added.]

The determination of what constitutes undue experimentation in a given case requires the application of a standard of **reasonableness**, having regard for the nature of the invention and the state of the art. **See Ex parte Forman**, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986).

Here, we do not find that the examiner has satisfied the initial burden of producing any reasonable line of reasoning which would substantiate a rejection based on lack of enablement. In response to the appellants' arguments, the answer states that

the disclosure is sketchy and schematic in many locations, for example, the actual structure and control of the brakes by computer, that [sic] one skilled in the art would be guessing at what appellants actually used. Appellants draw some

lines, give them a name and a number but do not describe their construction and operation. Publications and patents may provide background material but cannot overcome the lack of showing and description of the claimed elements. Micrometers are well-known tools to machinists and "micro" would clearly mean small adjustments are intended. However, appellants have not shown and described any specific structure to accomplish the intended result.

With respect to the "locks", for example, page 16 allegedly defines the computer controlled locks, e.g. 152 in Fig. 3. Fig. 3 shows element 152 as a block attached to track 154. No structure is shown how that block acts as a brake or anything else. Where is the computer control connection to the block 152? We only have appellants' designation of that block as a computer-controlled brake. Nothing on page 16 or anywhere else in the specification shows how that mere block functions.

"Driver", alias element 150 in Fig. 3, is another "block" showing no capability to drive or be controlled by the computer.

The endpoint sensors, e.g. 95 in Fig. 2 is also vague. Element 95 can scarcely be distinguished from element 94. How does that indicate an endpoint sensor or any other kind of sensor?

The term "generally perpendicular" is vague; the term "perpendicular["] is clear. Applicant has not defined how much deviation meets the "generally perpendicular" condition. [Pages 2 and 3.]

From the above, it appears that the examiner's position regarding enablement is based, in a large part, upon the fact that the appellant has used block diagrams in the drawings to

Appeal No. 96-1943  
Application No. 08/147,008

depict various conventional or well-known "off-the-shelf" mechanical devices such as locks, brakes, drivers and endpoint sensors. We must point out, however, that 37 CFR § 1.83(a) expressly provides that:

conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, ***should be*** illustrated in the drawing the form of a graphical drawing symbol ***or a labeled representation (e.g., a labeled rectangular box)***.  
[Emphasis added.]

Moreover, as the court in *In re Ghiron*, 442 F.2d 985, 991, 169 USPQ 723, 727 (CCPA 1971) stated

if such a selection [of elements] would be "well within the skill of persons of ordinary skill in the art", such functional-type block diagrams may be acceptable and, in fact, ***preferable*** if they serve in conjunction with the rest of the specification to enable a person skilled in the art to make such a selection and practice the claimed invention with only a reasonable degree of routine experimentation.  
[Emphasis added.]

Here, we do not believe that it can seriously be contended that the artisan would not have the skill to (1) make the required selection from conventional "off-the-shelf" mechanical devices such as locks, brakes, drivers and endpoint sensors and (2) provide for computer control of such elements,

and thus practice the **claimed** invention without undue experimentation. In making this determination we emphasize that no details of these elements have been set forth in the claims and, accordingly, the scope of enablement is commensurate with the scope of protection sought by the claims. **See In re Moore**, 439 F.2d 1232, 1236, 169 USPQ 236, 239 (CCPA 1971) and **In re Angstadt**, 537 F.2d 498, 502, 190 USPQ 214, 217 (CCPA 1976).

We are at a loss to understand the examiner's contention the appellant has not shown and described any micrometer structure. A "typical" micrometer mechanism is illustrated in FIG. 1B of the drawings and described on pages 16 and 17 of the specification.

We are also at a loss to understand how the term "generally perpendicular" makes the disclosure non-enabling. Words such as "generally" are well known in the lexicon of specification preparation and one of ordinary skill in the art would understand that "generally perpendicular" allows for a reasonable deviation from something that was exactly "perpendicular."



Appeal No. 96-1943  
Application No. 08/147,008

In view of the foregoing, we will not sustain the rejection of claims 1-16, 43-46, 57-61 and 66 under 35 U.S.C. § 112, first paragraph.

Turning to the rejection of claims 1-16, 43-46, 57-61 and 66 under 35 U.S.C. § 112, second paragraph, the examiner on pages 5 and 6 of Paper No. 23 and pages 3-6 of the answer sets forth a very lengthy list of recitations appearing in the claims which purportedly renders them indefinite. Having carefully reviewed each recitation identified in the lengthy list, we will not support the examiner's position.

The legal standard for indefiniteness is whether a claim **reasonably** apprises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). A degree of **reasonableness** is necessary. As the court stated in *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971), the determination of whether the claims of an application satisfy the requirements of the second paragraph of § 112 is

merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a **reasonable** degree of precision and particularity. It is here where the definiteness of language

Appeal No. 96-1943  
Application No. 08/147,008

employed must be analyzed -- not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. [Emphasis added; footnote omitted.]

In other words, there is only one basic ground for rejecting a claim under the second paragraph of § 112, namely, the language employed does not set out and circumscribe a particular area sought to be covered with a **reasonable** degree of precision and certainty when read in light of the specification.

Here, with respect to claim 1, the examiner takes the position that a "manipulator" of any kind does not "particularly point out and distinctly claim movable structure" and that the claimed distance "is not structurally established" (Paper No. 23, page 5). Additionally, with respect to (1) claims 13 and 44 which set forth "manually actuatable locks," (2) claim 60 which sets forth "at least one micrometer adjustment mechanism" and (3) claim 61 which sets forth "at least one selectively actuatable motion brake," the examiner asserts that insufficient structure has been set forth to "adequately describe" these recitations. Further,

Appeal No. 96-1943  
Application No. 08/147,008

with respect to claim 8, the examiner considers that there is no expressly set forth structure in the claimed "manipulator" which would provide the claimed three degree-of-freedom movement. The examiner also apparently believes that the cradle sections of claims 5 and 6, must be structurally connected to other elements. Such criticisms, however, **all** go to the breadth of the structure set forth, and just because a claim is broad does not mean that it is indefinite. **See In re Johnson**, 558 F.2d 1008, 1016 n.17, 194 USPQ 187, 194 n.17 (CCPA 1977); **In re Miller**, 441 F.2d 689, 693, 169 USPQ 597, 600 (CCPA 1971); **In re Gardner**, 427 F.2d 786, 788, 166 USPQ 138, 140 (CCPA 1970) and **Ex parte Scherberich**, 201 USPQ 397, 398 (Bd. App. 1977). Apparently, the examiner has analyzed the above-noted recitations in light of the appellants' disclosure and then decided what specific elements he believes should be recited to describe the manipulators, locks, adjustment mechanisms and motion brakes. Such an approach is improper. As explained by the court in **In re Stepan**, 394 F.2d 1013, 1019, 156 USPQ 143, 148 (CCPA 1967):

The problem, in essence, is thus one of determining who shall decide how best to state what the

Appeal No. 96-1943  
Application No. 08/147,008

invention **is**. By statute, 35 U.S.C. § 112, Congress has placed no limitations on **how** an applicant claims **his invention**, so long as the specification concludes with claims which particularly point out and distinctly claim that invention.

It is also the examiner's position that claim 12 is drawn to a catalog of unconnected elements. We are at a loss to understand such a contention inasmuch as this claim further defines the mechanism for selectively applying a braking force as one which includes "a computer and computer controlled brakes." Apparently the examiner believes that specific structure to actuate the brakes must be claimed (see answer, page 5). Such a criticism, however, again goes to the breadth of the claim and, as we have noted above, just because a claim is broad does not mean that it is indefinite.

The examiner also criticizes (1) the "inferential" recitation of an end effector in the "wherein" clause of claim 1, (2) the "adapted to" results set forth in claims 2-4, 7, 11, 14, 15, 43, 57 and 59 and (3) the functional recitations set forth in claim 9 because, in the examiner's view, these claims set forth insufficient structure to produce the claimed results. Once again we note that just because a claim is broad does not mean that it is indefinite. Moreover, as the

Appeal No. 96-1943  
Application No. 08/147,008

court in *In re Swinehart*, 439 F.2d 210, 213, 169 USPQ 226, 229

(CCPA 1971) stated:

there is no support, either in the actual holdings  
of our prior cases or in the statute, for the  
proposition, put forward here, that "functional"  
language, in and of itself, renders a claim improper  
[under 35 U.S.C.  
§ 112, second paragraph].

See also *In re Hallman*, 655 F.2d 212, 215, 210 USPQ 609, 611

(CCPA 1981): "It is well settled that there is nothing  
intrinsically wrong in defining something by what it does  
rather than what it is."

As to claim 16, the examiner criticizes the recitation of  
"means for direct endpoint sensing of the location of an end  
effector connected to the second manipulator," contending that  
the end effector must be positively recited. Once again we  
are at a complete loss to understand such a contention since  
the sixth paragraph of § 112 expressly provides that a claim  
may be drafted in a means-plus-function format.

In view of the above, we will not sustain the rejection  
of claims 34, 40, 41, 48, 51, 53-58 and 61-67 under 35 U.S.C.  
§ 112, second paragraph.

Appeal No. 96-1943  
Application No. 08/147,008

As a final matter, we note that the appellants' brief contains arguments concerning the propriety of the examiner's requirement that certain features be illustrated in the drawings. Under 35 U.S.C. § 134 and 37 CFR 1.191, appeals to the Board of Patent Appeals and Interferences are taken from the decision of the primary examiner to **reject** claims. In accordance with these provisions we have made a determination that the claimed subject matter is in fact based upon enabling disclosure (which includes the specification and drawings taken as a whole). Notwithstanding the decision on petition mailed February 2, 1995 (Paper No. 25), we are of the opinion that the issue of whether specific elements specified in the claims have or have not been shown in the drawings is directed to petitionable, rather than appealable, subject matter. **See Manual of Patent Examining Procedure** (MPEP) §§ 1002.02(c) and 1201 (7th ed., Jul. 1998). Accordingly, we decline to consider the propriety of the examiner's requirement.

The examiner's rejections 35 U.S.C. § 112, first and second paragraphs, are reversed.

**REVERSED**

Appeal No. 96-1943  
Application No. 08/147,008

JAMES M. MEISTER	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES E. FRANKFORT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
	)	
LAWRENCE J. STAAB	)	
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Appeal No. 96-1943  
Application No. 08/147,008

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